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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,897	07/31/2003	John L. Waddell JR.	WADDELL 1	9607

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EXAMINER

JOHNSON, STEPHEN

ART UNIT PAPER NUMBER

3641

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,897

Applicant(s)

WADDELL ET AL.

Examiner

Stephen M. Johnson

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 3,4 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-9 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3641

1. Applicant's election with traverse of species A (directed to an assembly for attenuating shock waves that includes a shock attenuating material that is perlite) in the reply filed on 1/25/2005 is acknowledged.

Claims 3-4 and 6 are withdrawn from consideration as being directed to non-elected species. Claims 1-2, 5, and 7-9 read on the elected species and an action on these claims follows.

2. Applicant's replacement sheet filed on 4/29/2005 has been approved.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Symons.

Symons discloses an assembly for attenuating shock waves comprising:

- | | |
|---|----------------------|
| a) 2 flexible sheets; | see figs. 4, 7, or 9 |
| b) a plurality of seems; | see figs. 4, 7, or 9 |
| c) a plurality of cells or recess; | see figs. 6 or 8 |
| d) a shock wave attenuating material (perlite); and | col. 5, lines 12-20 |
| e) flexible sheets that are water-impermeable. | col. 4, lines 54-68 |

5. Applicant's arguments are addressed as follows. (1) It is argued that the panels of Symons are rigid or hard panels and therefore do not meet the claim limitations directed to "flexible sheets". It is further argued that this statement is based upon the argument that a "thermosetting resin" is not a flexible material. This is contested for several reasons. Symons

Art Unit: 3641

specifically states that either a phenolic resin or a polyester resin may be used as a thermosetting resin (see col. 4, lines 10-37). Polyester resins are known to have inherently flexible characteristics (see The Condensed Chemical Dictionary (pp. 706) and Material Handbook (pp. 642-644)). In particular note the passages “The function of these acids is to reduce the amount of unsaturation in the final resin, **making it tougher and more flexible**” (pp. 706) and “Other of the resins are used with fillers to produce molding powders that cure at low pressure of 500 to 900 psi with fast operating cycles. Some of the polyesters **have rubber-like properties, and are Polyester rubber**” (pp. 643). Clearly polyester resins include flexible materials. (2) It is further argued that “thermosetting resin is described as a material that hardens when heated under pressure, but from then on cannot be molded or melted without ruining its original properties”. In response, this argument appears to be directed more to the way in which the thermosetting resin is manufactured and not to the properties of the material when finally formed. Also note col. 4, lines 63-68, of Symons wherein “the thermosetting resin having been polymerized, to give the cellular core **the required degree of rigidity**”. Such a statement implies that rigidity can be adjusted by varying the process of impregnation with a thermosetting resin. As such, if the degree of rigidity can be adjusted, it follows that the degree of flexibility can be adjusted as well. For all of the above reasons, the claim limitation directed to “flexible sheets” is clearly met.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3641

7. Claims 1-2, 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfisterhammer in view of Symons.

Pfistershammer discloses an assembly for attenuating shock waves comprising:

- | | |
|--|---------------------|
| a) 2 flexible sheets; | 19, 19', 19'' |
| b) a plurality of seems; | see fig. 10 |
| c) a plurality of cells or recess; | contains 22 |
| d) a shock wave attenuating material; | 22 |
| e) a covering of water impermeable material; and | 22 |
| f) flexible sheets that are water-impermeable. | col. 5, lines 65-69 |

Art Unit: 3641

Pfisterhammer applies as recited above. However, undisclosed is a shock wave attenuating material that has the flow properties of a liquid. Symons teaches a shock wave attenuating material that has the flow properties of a liquid (col. 5, lines 12-20). Applicant is substituting one attenuating material for another in an analogous art setting as explicitly encouraged by both the primary reference (see Pfisterhammer, col. 5, line 70-col. 6, line 6) and the secondary reference (see Symons, col. 5, lines 12-20). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Symons to the Pfisterhammer attenuating assembly and have an attenuating assembly that has different material type of core attenuating material.

8. Applicant's arguments with respect to Pfisterhammer are addressed as follows. (1) Applicant argues that in Pfisterhammer the cells or recesses are formed in the space between the sheets. The examiner agrees but since this argument is not directed to anything in the claim language it is not convincing. (2) Applicant argues that the material of the "flexible sheets" is made of components of great strength such as steel and aluminum. In response, please note col. 1, line 20, where one of the structural materials is "polyamide". Further, note col. 1, lines 27-31, and specifically the text "The structural material ... is characterized by its high elastic deformability in all directions of stress". (3) With regard to the issue of "no indication that these granules have the flow properties of a liquid", Symons has been provided to meet this claim limitation. (4) Applicant further argues that the purpose of the filler material is to slow an entering projectile. In response, note that this only one example of a particular usage of the armor arrangement of Pfisterhammer (see col. 4, lines 30-48).

9. Claims 1, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Abbott.

Art Unit: 3641

Abbott discloses an assembly for attenuating shock waves comprising:

- a) 2 flexible sheets; see figs. 9, 10
- b) a plurality of seems; col. 6, lines 60-62
- c) a plurality of cells or recess; 65, 66, 67
- d) a shock wave attenuating flowable material; and 68, col. 6, lines 47-49
- e) flexible sheets that are water-impermeable. col. 6, lines 60-62

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott in view of Symons.

Abbott applies as recited above. However, undisclosed is a shock wave attenuating material that is perlite. Symons teaches a shock wave attenuating material that is perlite (col. 5, lines 12-20). Applicant is substituting one attenuating material for another in an analogous art setting as explicitly encouraged by both the primary reference (see Abbott, col. 6, lines 47-49) and the secondary reference (see Symons, col. 5, lines 12-20). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Symons to the Abbott attenuating assembly and have an attenuating assembly that has different material type of core attenuating material.

11. Applicant's arguments filed on 4/29/2005 have been fully considered but they are not persuasive. These arguments have been addressed in the preceding paragraphs of this Office action.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3641

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
Art Unit 3641

SMJ
June 14, 2005

Application/Control Number: 10/630,897

Page 8

Art Unit: 3641